

MONTHLY WEATHER REVIEW.

Editor: Prof. CLEVELAND ABBE.

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INTRODUCTION.

The REVIEW for September, 1896, is based on 2,746 reports from stations occupied by regular and voluntary observers, classified as follows: 149 from Weather Bureau stations; 33 from U. S. Army post surgeons; 2,421 from voluntary observers; 33 from Canadian stations; 1 from Hawaii; 96 received through the Southern Pacific Railway Company; 14 from U. S. Life-Saving stations. International simultaneous observations are received from a few stations and used together with trustworthy newspaper extracts and special reports.

The WEATHER REVIEW is prepared under the general editorial supervision of Prof. Cleveland Abbe. Unless otherwise specifically noted, the text is written by the Editor, but the statistical tables are furnished by Mr. A. J. Henry, Chief of the Division of Records and Meteorological Data. Special acknowledgment is made of the hearty cooperation of Prof. R. F. Stupart, Director of the Meteorological Service of the Dominion of Canada, Mr. Curtis J. Lyons, Meteorologist to the Government Survey, Honolulu, and of Dr. Mariano Bárcena, Director of the Central Meteorological Observatory of Mexico.

CLIMATOLOGY OF THE MONTH.

GENERAL CHARACTERISTICS.

During the current month the average pressure was slightly above normal on the northern and eastern slope of the Rocky Mountains, as also in Nova Scotia, Newfoundland, and Bermuda. The temperature was slightly above normal in the South Atlantic and Gulf States and southern Plateau Region. The mean temperature was the lowest on record at Rapid City, Sioux City, and La Crosse. The precipitation was decidedly above normal in the Ohio Valley, Illinois, on Lake Michigan, the Lower Lakes, and the coasts of New England and Nova Scotia. Considerable snow was reported from Montana and Colorado. The principal storms of the month were the two hurricanes that passed northward along the Atlantic Coast on the 5-10th and 28-30th. Hot, dry weather has injuriously affected the crops in a few States.

ATMOSPHERIC PRESSURE.

[In inches and hundredths.]

The distribution of mean atmospheric pressure reduced to sea level, as shown by mercurial barometers, not reduced to standard gravity, and as determined from observations taken daily at 8 a. m. and 8 p. m. (seventy-fifth meridian time), is shown by isobars on Chart IV. That portion of the reduction to standard gravity that depends on latitude is shown by the numbers printed on the right-hand border.

The mean pressures during the current month were high on the Atlantic Coast and in northwestern Washington and low in Arizona.

The highest pressures were: Bermuda, 30.12; Halifax, 30.09; Lynchburg, 30.08; Charleston and Parkersburg, 30.07. The lowest were: Yuma, 29.76; Phoenix, 29.80; Fresno, 29.34.

As compared with the normal for September, the mean pressure was in excess in the upper Mississippi and Missouri valleys, as also in Bermuda, Nova Scotia, and Newfoundland. It was deficient in California and the Gulf and Atlantic

States. The greatest excesses were: Edmonton, 0.13; Miles City, 0.10; Calgary and Helena, 0.09. The greatest deficits were: Roseburg, Sacramento, Baltimore, Harrisburg, and Nantucket, 0.06.

As compared with the preceding month of August, the pressures, reduced to sea level, show a rise over the northern and eastern Rocky Mountain Slope, the Lake Region, and New England, but a fall in the South Atlantic and Gulf States and on the Pacific Coast. The greatest rises were: Calgary, 0.09; Helena, Havre, and Battleford, 0.08. The greatest falls were: Jupiter, 0.11; Key West, 0.10; Tampa and San Diego, 0.09; Galveston and Eureka, 0.08.

AREAS OF HIGH AND LOW PRESSURE.

By Prof. H. A. HAZEN.

During the month seven high and eleven low areas have had sufficiently well defined trajectories to be charted. Their paths will be found on Charts I and II, together with the pressure at the position of center twice each day. The accompanying table gives the place of origin and also of disappearance, the length and duration of the path, and the velocity of each high and low pressure area. The high areas took a much more southerly average path than in August, while most of the low areas were just on the northern border of the region of observation. Three of the highs originated to the north of Montana and the other four off the north Pacific Coast. One of the highs finally merged with a rather permanent high in the Gulf Region, a second was last seen off the middle Atlantic Coast, and the remaining five disappeared off Nova Scotia.

Of the lows Nos. II, III, VII, VIII, IX, and X started to the north of Montana and moved nearly due east; No. I began in Montana and moved east; No. V began in South Dakota and moved a little south of east; No. VI was first noted northwest of Lake Superior and moved east.

No. IV was a well developed West India hurricane which,